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ABSTRACT

This paper discusses computer classes for older people in Adult Education (AE) programs. To understand both the attraction and shortcomings of the AE computer classes that the author observed, she identifies what she perceives as the program's minimum benefits. She also discusses how the program's conceptualization as "retirement learning" may have resulted in conditions that dissatisfied some students. Over the course of ten weeks, she observed five computer classes at a highly regarded adult education program that was part of a community college and had students complete a questionnaire. The classes seem to provide entry-level education that would be adequate for most personal-use students, while serving as a first step for those who needed better training to enter more advanced, mixed-age computer classes in public or private venues. One-half to a majority of enrolled students attended class regularly. In spite of program limitations, students perceived that the classes offered benefits, such as peer environment, student-centered instruction, and basic orientation to cyberculture. In spite of a generally positive educational environment, there were issues that some students defined as problems, and administrators did not. These issues were significant in that they raised questions about program goals (i.e. rigor versus personal use) and standards of quality. Appended is the student questionnaire. Contains 14 references. (JA)

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By Susanne Pennoyer

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Benefits and Limitations of Computer Classes in an Older Adult Learning Program

By Susanne Pennoyer

Abstract: Seniors need high quality computer training in order to remain integral members of a technological society. Adult Education (AE) programs offered through community colleges and other venues provide some computer classes for older people. However, critics say that AE classes, often conceived as retirement activity, offer inadequate course content. My observation of AE beginning computer classes provided some support for this view. I observed mild conflict revolving around the fact that retirement-oriented program goals allowed for minor lapses in the quality of classes. However, even though some students criticized such lapses, there continued to be stronger demand for the classes than administration could deliver.

To understand both the attraction and shortcomings of the AE computer classes that I observed, I have identified what I perceive as the program's minimum benefits. I also discuss how the program's conceptualization as retirement learning may have resulted in conditions that dissatisfied some students. Finally, I identify a self-resolving aspect of the "retirement versus rigor" conflict. This resolution may be temporarily adequate until more rigorous AE programs become available for older people.

Introduction

Although senior citizens' use of computers has been treated as a human interest story in the press, this approach fades as the topic loses its novelty. As computer courses for seniors become more common, questions about educational quality gain importance.

Older adult education (AE) is frequently conceptualized as a retirement, leisure-time activity dominated by hobby-oriented, or personal development (also called personal use) classes. Therefore, the terms retirement, leisure activity, personal development, and personal use are used interchangeably here to refer to comparatively more academically relaxed courses. This loosely defined category is juxtaposed to that of vocationally-oriented or more academically rigorous courses.

The leisure-activity orientation is often associated with insubstantial course content. Moody and others, for instance, say that adult education isn't taken seriously (Moody, 1994; Howard & Henney, 1998). If this is true, will serious students become discouraged by simplistic or casually managed classes? And where, exactly, is the line between "personal development" classes and those designed with "serious," or more instrumental, purposes in mind?

Moody defines serious adult education as that which teaches job-related skills or skills that can be used to contribute to society through volunteering (1994). One might reasonably expand the definition by including computer education designed for seniors who have become disabled (or who lack transportation) and need Internet skills for shopping, research, and social contact. Clearly, this is a serious goal. However, goals unrelated to livelihood are not necessarily peripheral or trivial. Some might argue that high standards and seriousness of purpose are just as important in terms of AE liberal arts courses. For instance, an instructor in a Minnesota collegium for seniors emphasizes quality and rigor in terms of his Shakespeare class, pointing out that at an ElderHostel he might be inclined to start out the course with a movie. But since students can watch movies on their own time, he says, "We decided we'd try the real thing," (Gose, 1998).

The "rigor versus leisure-time" approach to class design and delivery was also an issue at OAK. In observing classes I noticed some conflict between occasionally casual standards of course delivery versus the higher standards desired by a few vocal students (who had goals ranging from job skills training to personal development goals). These students criticized repetitiveness and slow pacing of classes, as well as disorganization of one instructor's lectures. However, because personal development and socialization were primary program goals, administration did not judge the repetitive, slow paced instruction to be a serious problem. Administration also reframed the issue of disorganized lectures (in the case of the one instructor) in terms of professional versus personal development goals, with the latter requiring a less structured approach than might be required of professionally-oriented classes. Based on this interpretation, administration did not view the allegedly disorganized lectures as a problem.

In spite of some student criticism, however, most of the classes were fairly well attended. Even students who criticized them continued going, if irregularly. Therefore, I concluded that the program must have offered benefits that the students couldn't find elsewhere. Based on my observation of classes, I suggest that minimum benefits included a peer environment, student-centered instruction, and delivery of a basic orientation to cyberculture. (I do not discuss instruction in basic skills as a minimum benefit, since this is a given. Even minimal instruction and facilities would provide that, and those at OAK ranged from adequate to excellent.)

I concluded that the classes provided entry level education that would be adequate for most "personal use" students, while serving as a first step for those who needed better training to enter more advanced, mixed age computer classes in public or private venues.

Fieldsite

Over the course of ten weeks I observed five computer classes at a highly regarded adult education program, which was part of a community college. After six weeks I narrowed my focus to two beginning classes; however, my field notes on the other three classes have provided context and insight.

Place and person names are fictional in order to maximize privacy of those mentioned in this paper. The OAK program for older students had three thousand students between the ages of approximately sixty-five and seventy (although no one was denied enrollment on the basis of age). In the classes that I observed, there were a few students who seemed to be in their late fifties and early sixties. There were also some students in their eighties. The organization's stated goal was, "To provide education and mental and physical stimulation..." Classes covered subjects of general interest as well as those specifically geared toward seniors (such as coping with age-related changes and illnesses). The computer classes that I observed took place at a satellite campus of the community college.

I have chosen a community college as my field site because of the viability of this institutional form for AE development. As Caro et al point out, community colleges are suited for extensive education of older adults because (1) they are accessible by commute to most Americans, (2) community colleges offer low tuition, (3) they have a demonstrated ability to change program design to keep pace with changing needs of students, (4) they work with employers to train and retrain workers, (5) of all institutions they have the most experience working with older students (Caro, Bass & Chen, 1994).

OAK is typical of older adult education programs in that it offers what have been referred to as personal development (also called personal use) classes, or in other words, noncredit classes which are neither rigorously academic nor directly related to improving job skills.

At OAK, classes were free to students. Its budget was determined by the state on the basis of a formula involving FTE, or full time equivalent students. Because its classes were noncredit, OAK had lower per student funding than credit classes. However, as a program for seniors it was eligible for special category-based funding that wouldn't be available to traditional accredited classes. It also had an advisory board and regular fundraising drives. Its volunteer program and volunteer recognition events helped build its constituency.

METHODS

This is a qualitative research project based on participant-observer, interpretive methods. Participant –observation requires the researcher to maintain enough distance from people at the site to carry out research tasks, while nevertheless socially interacting. "Interpretive" refers to the researcher's role in determining how to understand, define, analyze, and express phenomena that he or she has observed.

One of many possible examples involving interpretation in this study is my use of a paradigm that includes a notion of rigorous versus retirement-oriented courses. The juxtaposition of these approaches influenced my perception of the program. I looked at the classes not only as leisure activity but also in terms of their potential for job skills training. Additionally, I considered them in the light of conventionally rigorous academic

standards that would apply to accredited classes offered through the college's mainstream program. This perspective influenced my interpretations.

Data Collection Methods

I used the ethnographic method of field note writing that entails minimal use of evaluative terms (Emerson, 1995). With pen and pad and laptop computer, I recorded as much as possible of what was said and done on site. I read, re-read, and coded field notes in order to identify patterns, themes, structures, and issues.

It was important to identify my own perceptions and biases in order to distinguish them from meanings expressed by people at the site (also called members). I did so through reflective processes and memo writing, and also by asking members open-ended questions on topics involved in my suspected biases.

In two classes, I participated by answering any questions that I could about computer applications and the Internet. However, I found that the question-answering process made if difficult to observe and take notes. Therefore, in two beginning computer classes and one intermediate class, I refrained from most interaction during class and focused on observing and taking notes. I continued to interact with people before, after and very occasionally during class.

LITERATURE REVIEW

My literature review provides supportive information and context for issues related to findings. Here I provide a limited overview of literature pertaining to the need for and extent of older adult computer classes in public education. I briefly discuss a few of the more prominent or classic AE theories in relation to some of my observations

about the OAK program. To provide background for computer-related learning issues among seniors, I will briefly review literature on topics of cyberculture.

Computer Classes for Seniors: Not a Novelty

The quality of older adult education may come under increasing scrutiny along with an increasing trend toward retraining of workers. According to estimates, the average person must now be prepared for more than one--and perhaps several--careers in a lifetime (Brademas, 1990). Concern over strain on the social security system makes later retirement a public benefit, plus employment may be the only way many social security beneficiaries can pay bills. (There is a strongly increasing tendency toward later retirement for older women in particular.) On April 7 of this year, therefore, President Clinton signed the retraction of an earnings limits bill (for the 65 to 69 age group) that will benefit those who want to supplement retirement by working. Such legislation may be an additional factor in expanded need for retraining of older people. In these programs, computer classes will be among the standard fare.

Computer skills (and especially Internet skills) can also help seniors who are disabled or lack transportation, while closing the gap in cybercultural awareness between seniors and younger generations.

Cyberculture: Everyone's Stomping Ground

Perhaps unfamiliarity with computers is similar to unfamiliarity with a culture. Just as some research has suggested that standard academic tests favor certain cultural perspectives (Wightman, 2000), cyberculture may intimidate those who are unfamiliar with it. Possibly this affects older people even more strongly given that most of them are likely to have spent the greater part of their lives without computers.

The term cyberculture is in common use, but what is its exact meaning? An online dictionary defines it as "the culture that has formed among those who use the Internet and other networks to communicate...(and which) has its own customs, etiquette, mythology, and ethics," (computeruser.com, 2000). However, this seems a partial definition. Two writers quoted in a scholarly communications journal suggest much more comprehensive meanings for the term:

> "For worse or for better, we are today virtually all struggling to survive and communicate -- if differently and in different modes -- within the hegemonic exigencies of cybernetic culture," (Phohl in Hamilton, 1998).
>
> and
>
> "I take the word cybernetic to embrace not only the information sciences but a metaphor so deeply engrained in our culture, so silently driven down to the roots of our imaginations, that it achieves the status of an element in a new mythology," (Porush, in Hamilton, 1998).

Whether or not these authors overstate the case, there is little question that culture is being radically changed by computers. Because of this, orientation to cybercultural language and concepts is an important part of instruction in AE computer classes.

Instruction, Learning, and Cognition

Instruction and Learning

The literature on adult education is extensive, and I have touched on only a few of the early and prominent AE experts. However, the assertions, concepts, and typologies which I present here do not seem to contribute much in the way of understanding unless

they are considered in context of actual learning situations. As Knowles et al point out, "learning may be so highly context specific, and the interactions so complex, that consistent relationships will never emerge, at least not with the degree of generalization we might desire," (1998, p. 154). Nevertheless, AE concepts may be useful when used as a frame of reference for particular situations. Therefore, I will briefly discuss some basic tenets of adult education as they apply to specific computer classes at OAK.

As part of her extensive review of adult education scholars, Merriam has provided an overview of Knowles and Knox. In 1968 Knowles, known as a leading writer and practitioner in the field, developed the term andragogy (to teach adults) as distinct from pedagogy (to teach children). He further developed what he called a "model of assumptions" or "system of concepts" (Knowles in Merriam, p. 273, 1999) that posits traits of adult learners:

1. Adults are more self-directed than younger adults.
2. Adults' extensive life experience is an important learning resource.
3. Adults' learning patterns are linked to their work and social roles.
4. Adults are more interested in immediate (as opposed to future) use of knowledge. Their learning is more problem-centered than subject-centered.
5. They are internally rather than externally motivated.

As Hartree says, Knowles assumptions "can be read as descriptions of the adult learner...or as prescriptive statements about what the adult learner *should* be like," (In Merriam, 1999. p. 273). This resonates with Cohen's statement that much of what is called theory in education is actually ideology (1996). However, Knowles' concepts are useful as a set of reference points and counterpoints against which to compare a given class room situation. This, in turn, stimulates analysis and enriches insight. Therefore, in the following five discussion points, I will briefly consider each of Knowles's assertions about adult learners in terms of my observations at OAK:

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1) Knowles' assertion regarding adult self-directedness did in many ways apply to students at OAK, where it was a salient aspect of student behavior, (discussed under Findings).

2) His concept that extensive life experience is an important learning resource may be more applicable in classes other than the computer classes that I observed. However, it raises the question of what—in the life experience of people who grew up before computers—supplies experiential analogies to computer use? If "none" is the answer (although this seems unlikely), then how might computer students and instructors compensate?

3) Knowles' point that learning patterns are linked to work and social roles applies to the issue of whom OAK computer classes served—job-seekers or hobbyists? Slower students or quicker ones? This question laid beneath conflicts regarding the quality and pacing of curriculum delivery at OAK.

4) The concept that adults are more interested in immediate—rather than future—use of knowledge suggests a pragmatic approach in keeping with the fact that computer and health-related courses were the most popular at OAK.

5). Finally, Knowles's statement that older people are more motivated by internal than external pressures bore out at OAK in the sense that only two of nineteen questionnaire respondents said they had felt pressured by society or by people close to them to take computer classes. Most stressed their own interest in computers.

In short, Knowles's assertions about adults have applicability to OAK. However, as others have pointed out, these assertions are not necessarily unique to adult learners. In

some cases, they might as easily apply to children as to adults, (Merriam, 1999). I return, therefore, to my beginning point that Knowles' assertions are best considered within the context of given situations.

Based on his concepts of adult learners, and building on the theories of Dewey and others, Knowles stressed the need for an accepting classroom environment and mutuality between instructors and students. Students should have a part in identifying their own learning needs and influencing course content (Knowles et al, 1998).

In considering this approach to teaching, which might be called student-centered, I reflected on the statements made by two of the three OAK instructors whose classes I observed. Both said they tried to gauge lectures to student needs and interests on a lecture-by-lecture basis, and my classroom observations supported their statements. The third instructor gauged lectures to students by having them work independently and at their own pace on a set of exercises of increasing difficulty.

Knowles' concept of student-teacher mutuality suggests standards that thoughtful and considerate educators would apply in any case. Nevertheless, not all educators are considerate and thoughtful. One instructor at OAK, for instance, told me:

> I had a retired policeman in here who said the teacher before me wouldn't let them use the mouse because she thought seniors couldn't. He held up the mouse to her and said, "You see this? You see me holding it? I'm going to use the mouse," (F. Flynn, 5/22/00, Interviews, p.5)

Therefore, given that not all instructors can be counted on to apply principals of basic respect for other adults--a failure that might be exacerbated by bureaucratic pressures and peculiarities--Knowles's assertions are important as a model, a reminder, an inspiration.

Knox, another key scholar of adult learning, developed what he called the proficiency theory (1980). This theory, or set of assertions, stated that AE should take into account the following issues:

1. Centrality of the adult student's social role and responsibilities outside of the classroom
2. Close link between the course content and its uses outside of class.
3. The discrepancy between student's current and desired states of knowledge sparks motivation.
4. Distinction between competency-based learning (learning the basics) versus "optimal levels of proficiency related to adult roles" (In Merriam 1999, page 283).

Like Knowles, Knox accounts for the adult's social role outside of class--specifically, his or her use of course content outside of class. This concept applies to events at OAK in terms of conflicts that arose over different ideas of what purposes classes were to serve, and consequently how they should be run. Knox's last point distinguishes between basic learning and competency-based learning, linking the latter to adult learning. At OAK, the issue of competency goals applies to disparate ideas regarding the quality and rigor of classes (discussed in more detail under Findings).

Development of typologies has been a major focus of pioneering AE scholars. For instance, Houle, Morstain and Smart, and Boshier * all developed typologies of learning goals and orientations. Once again, these are of little interest as lists taken out of context. However, such typologies suggest reference points by which to establish standards of andragogic design and quality. (For instance, a discussion of standards at OAK only takes on meaning in relation to goals. For example, if the purpose of education is to serve as a

* The following is Houle's typology of three separate but overlapping orientations (later tested and elaborated by Boshier (1985) and Morstain and Smart (1974): 1. goal oriented (to achieve something) 2. activity-oriented (have something to do and engage in social interaction) 3. learning-oriented, or learning for itself (Merriam 1999)

leisure activity, different standards apply than if the classes are used for job skill development.)

Cognition

As mentioned, Knowles asserts that having a store of past experience enhances the learning process. However, the validity of this concept is debatable in terms of computer classes. The relatively recent advent of wide-spread computer use means that seniors in computer classes may be faced with the need to learn new material with which they have very little or no prior familiarity. Furthermore, fluid intelligence, which is associated with speed and flexibility (traits likely to be useful in learning computer skills), is currently understood to decline with age. Research results conflict on various points, such as the age at which this decline begins to occur (Horn; Horn & Donaldson; and Cattel in Hooyman & Kiyak, 1999). Crystallized intelligence which, by contrast, refers to knowledge gained through education and life experience is also thought to decline with age, but later than that of fluid intelligence.

Although tests for fluid and crystallized intelligence have consistently shown decline with age, some researchers are now saying their tests show cognitive decline with age is not a given for all individuals, but seems instead to be associated with atherosclerosis, diabetes, and possession of the gene associated with Alzheimer's (McDonald, 1999). Psychologists suggest that social expectations of age-related cognitive declines may also lower the older person's confidence level, with the concomitant result of lower performance (Hooyman & Kiyak, 1999).

Cognitive ability was a salient issue in the conversations of OAK students and instructors. Students referred to their own inabilities or anxieties about computer

learning, and some complained of others' slowness. Two of the three instructors I spoke to said seniors needed more repetition than younger people (Interviews: J. Landis, 4/29/00, p. 8; H. Vera, 5/25/00, p. 4). As I will discuss, some of the need for repetition may have been due to some students' hearing loss, exacerbated by the fact that there was a shortage of written material. Feeling like an outsider to cyberculture may have been yet another obstacle that created uncertainty and slowed down learning.

Extant Adult Education Standards: Where Can "Serious" Older Students Go?

My observations at OAK led me to the conclusion that serious computer students would have to move on after achieving beginning to intermediate levels of proficiency. This section provides an abbreviated review of existing options for such students.

There is a wealth of information about adult education programs, however, a lack of cohesion among institutions results in varying definitions and meanings, and this yields conflicting pictures. For instance, statistics on the extent of older adult education programs at community colleges vary. The Director of OAK reported that 1% of California community colleges have adult education programs (2000), while Getskow reports that 50% "are involved with lifelong learning opportunities for older adults" (1997, p. viii). The disparity in figures no doubt lies in different concepts of what it means to have an adult education program. A community "involved" with lifelong learning may be offering only one course versus an entire program. (There is also a difference in the definition between lifelong learning and adult education, however the

terms overlap in meaning, and it is clear from her context that Getskow is referring to adult education.*)

Providers of adult education include colleges, universities, university-based learning opportunities, interfaith religious coalitions, humanities programs sponsored by corporate organizations, and community based senior centers; Elderhostel offers its courses through existing venues, such as the ones mentioned above (Manheimer and MacKenzie in Getskow, 1997).

Vocational education and training courses are currently in operation publicly and privately. Some companies offer retraining; however a 1986 survey conducted by American Association for Retired Persons found that lower income employees over 63, as well as those employed by small firms, were less likely to be trained (Getskow, 1997). There are also federally funded training programs such as the Senior Community Service Employment Program (SCSEP) and the Job Training Partnership Act (JTPA), but these impose narrow eligibility requirements. Getskow reports that some community colleges also provide vocational and retraining for both old and young people (1997).

This last issue—community college vocational retraining—is of particular interest here. Because OAK does not intend to provide vocational retraining, older students in retraining programs at OAK's parent college are in mixed age classes. This is appropriate in light of the fact that—if older people expect to persist in the job market—they should be able to compete and cooperate with younger students in class just as they would at a job. Nevertheless, as I discuss in the body of this study, the option to study with members

* Getskow defines lifelong learning as "The process of learning from cradle to grave [which is] emerging as a value positive term or phrase frequently used in program titles for older adults" (1997, p. viii). However, it is more commonly used to mean "intermittent education, whether or not undertaken in school settings" (Cohen, p. 280, 1996).

of one's own generation in at least some classes would be a benefit for older students (just as it is for other age groups). However, given that OAK does not offer job skills classes for older people, further research might focus on the question of where older students can turn in search of such classes.

FINDINGS

I report here on two of my key findings at OAK. First, half to a majority of enrolled students at OAK attended class regularly.* Therefore, I concluded that, in spite of program limitations, students perceived that the classes offered benefits. I suggest that the minimum benefits (in addition to at least adequate computer skills training) included the following three characteristics: a peer environment; student-centered instruction; and orientation to cyberculture. My second finding was that, in spite of a generally positive educational environment, there were issues that some students defined as problems, which, however, administration did not. These issues were significant in that they raised questions about program goals (i.e. "rigor" versus "personal use") and, correspondingly, standards of quality.

I. MINIMUM BENEFITS TO STUDENTS:1) peer environment 2) student centered instruction 3) basic orientation to cyberculture

1. Peer Environment

A peer environment may have special value in a computer class, given that computers have been considered the possession, culturally speaking, of younger generations. As one OAK student told another:

> "I think from age 3, they [younger people] have learned it [Internet conventions] and that's something we'll have to learn" (F. Flynn, 4/3/00, p.11).*

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* The figures varied from class to class, and attrition occurred toward the end of the spring semester during which I observed. However, it is unknown whether attrition was due to dissatisfaction with classes or other causes. Since the classes ended in June, students may have been leaving for vacation. However, attrition at OAK is a concern of Administration, to the extent that they are considering making the classes 10 weeks instead of 16.

* Initials refer to the instructor, followed by date and page of field notes. Longer field note citations are in end notes.

I saw an extremely high level of involvement, with students continually asking questions of the instructors and of each other. They also freely expressed both insecurity and confidence, whereas, had they felt judged by more experienced (usually younger) students, they may have been hesitant to express both insecurity and assertiveness.

Although I noticed that some students were habitually silent, most asked questions aloud on a regular basis. (I estimate that an average of ten to twelve questions per class were asked aloud, based on a rough count.) Students asked technical questions, as well as somewhat assertive ones such as, "Can you tell us what we're going to be doing here?"[1] (See endnotes.)

They helped each other extensively—talking, laughing, and smiling while pointing at each other's screens, leaning over to tap keys on each other's keyboards, and otherwise interacting in terms of the computer. Other times they stared at each others' screens seriously and tried to figure out how to perform various tasks. I recorded a minimum average frequency of interactions at one every 8.3 minutes in H.Vera's class and every 15.4 minutes in F. Flynn's, but such events were probably much more frequent. (I was logistically limited as to what I could observe and record.) Judging from questionnaires, students valued these interactions; half (ten of nineteen) questionnaire respondents gave strong positives to "Enjoy getting out and interacting with people" as one of six reasons to attend OAK computer classes.

Among peers, students had the opportunity to come to terms with their beginner status; nevertheless, it wasn't always easy. One day the instructor asked:

> "For how many of you is this the first time you're on the Internet?" Jackie raised her hand, smiling.
> Eulie [hesitantly] raised her hand a few seconds later (H. Vera, 4/27/00, p.10).

One student felt free to admit her beginner status, the other hesitated. In short, it wasn't always easy to be a beginner, but being among peers may have helped. Over the long run, however, I saw students—male and female alike—openly admit their confusion and insecurities about the computer. Overall, students seemed comfortable expressing computer-related anxieties such as the following: "I'm all messed up"; "I can't do this. This is too much"; "I'm completely lost"; "I bombed terribly"; "Are you sure you want me in this class?"; "I'm so slow"; and "See, I'm still in the fearful stage". [2] (See endnotes.)

Students also express confidence, which—like expressions of insecurity—may have been difficult to do in a class with more experienced computer-users. Ivan, for instance, (referring to the fact that he was asking relatively advanced questions) said to the instructor, "I don't want to get ahead of you." [3] (See endnotes.) It is noteworthy, however, that expressions of explicit confidence were less frequent than those of trepidation.

Perhaps expressions of pleasure over accomplishment were a form of self-confidence. At the same time, open displays of delight, as though over a new experience, expressed one's beginning status. Students were free to share their novice status rather than hide it. Sue, for instance, smiling and laughing while looking at the monitor, said, "Amazing, just amazing." Other examples include Jackie's clap of hands when she successfully downloaded a file from a remote computer site; Tippy's comment, "I'm really having fun with this," and later, looking at her screen, "This is cute;" and Drew's response of a pleased, "Woo!" over something she was shown on her computer.[4] (See endnotes.)

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Students actively participated in class by regularly calling out comments on any topic, as illustrated by the following incidents:

> Tippy...said, "I have lots of e-mail from friends saying, 'Don't open such and such an e-mail'. There was some buzz over this among other students. (F. Flynn, 3/27/00, p.4)

> Ms. Flynn talked about highlighted text disappearing when you hit "Enter." Joe called out, "I did that." (F. Flynn, 3/27/00, p. 7)

> Ms. Flynn said, "For homework start looking at how things you get in the mail are formatted."
> "Or take out a book on formatting," Tim said. (F. Flynn 4/15/00, p.16).

Such participation allows students to "own" their classrooms. To study with members of one's own generation allows them to integrate social roles and social experience with learning.

2) Student-centered Instruction

Instructors at OAK provided 1) attentive and flexible instruction 2) moral support, and 3) orientation to cyberculture

Attentive, Flexible Instruction

Knowles and other AE theorists have emphasized that instructors need to adjust to the level of the student, rather than presenting curricula which have been designed independent of student feedback. By definition, this entails the instructor's spending time with individual students. Both F. Flynn and H. Vera not only regularly circulated throughout the room,[5] (see endnotes) but also spontaneously gauged lectures according to student progress on the day in question.

Both instructors integrated lecturing with circulating. Often they started class by asking for student topic preferences. They then began a lecture based on requested topics and gave students a corresponding project. Meanwhile, they circulated and answered questions. Instructors then usually returned to the front of the room and went over material again, answered questions, and proceeded to a new subject, followed by a new exercise. In short, lectures were directly linked to students' interests and progress on any given day.

Moral Support

Instructors acted as advocates for students. Perhaps in consideration of the fact that many seniors are new to computers, instructors provided moral support. They commonly used supportive phrases such as: "Good thinking," (H. Vera, 4/20/00, p. 4) and "Good question." They also went out of their way to discourage students from self-reproach, as in the following examples:

> [Referring to the book *Word for Dummies*], Cora said to Ms. Flynn: "I must be a dummy because I don't understand what it's talking about most of the time."
>
> "That's the problem with some of those books," F. Flynn replied. "They assume you already know it. It's written by computer people who can't imagine people not knowing what *they* know." (F. Flynn, 5/15/00, p.32)

One day I observed Ms.Vera tell Terrence:

> "You just need practice." [A few minutes later], Vera was still sitting next to him saying, "No, this is perfectly normal. It happens all the time. It just takes practice." (H. Vera, 4/20/00, p.5)

Another time she told him, "It's not your fault." H. Vera, (5/4/00, p.10).

Orientation to Cyberculture

OAK instructors provided an orientation geared toward students who were not only new to computer use, but also to the general parameters of computer-related cultural understandings. Some of the remarks by seniors quoted above suggest that they sometimes felt like guests in cyberculture. I considered it beneficial, therefore, that instructors helped orient students to cyberculture without assuming prior knowledge. For instance, when Ms. Flynn said, "People can be phobic about technology" [F. Flynn, 4/3/00, p.12], she made that an acceptable possibility instead of something people had to hide. Another time, she said:

> "….Some of the stuff…it's a whole different language." Holding up a floppy disk, she said, "Floppy? People say, 'You mean like this? This isn't floppy'. Until I take it apart and show them what's floppy about it." (F. Flynn, 5/22/00, p.45).

Instructors also explicitly addressed the fundamental question of why one needs a computer at all. If students had gotten along fine without computers most of their lives, it might have been hard to imagine why they needed them now. At one point, for instance, Ms. Vera had been talking about the function that prints the same header or footer on every page. Ivan asked, "Why would you want to do that?" (H. Vera, 5/18/00, p.17). Therefore, OAK instructors--often prompted by student-- discussed the value of various computer functions. When Ms. Flynn talked about a function that allows the user to make and save in the computer a standard form to use like a template, she invited the class to suggest examples of when that might be useful (F. Flynn, 5/15/00, p.35). Another time she explicitly pointed out that the tab key is "useful" (F. Flynn 4/3/00, p.12).

Instructors also frequently referred to wider par meters in terms of computer use and computer culture:

> "The idea these days is to move toward a paperless office," H. Vera said. "You can have a connection to coworkers and send and receive documents" (H. Vera, 4/27/00, p. 8).

Perhaps most importantly, students also received cyber-world acculturation through the computer use process itself. For instance:

> After H.Vera had helped everyone find the Window, she said to type in the URL [Uniform Resource Locator]. Someone asked, "Do you type it in any way?" H.Vera [pointing to the long, detailed URL that she had written on the board] said, "No, no. Type it in *exactly* this way."
> (H. Vera, 4/27/00, p.10).

When students learn that they must give the computer exact instructions, they are learning the characteristics of the machine that has "revolutionized" our society, as well as whom they must be in relation to that machine. They learn that there are times when they might accomplish the same task—not by reverting to exact instructions after all—but by taking any one of several routes. When students learn the practical, functional tasks required to operate computers, they are also learning who they must be in relation to the computers. In this sense, "interaction" between humans and computers is similar to social interaction. It is a component of cyberculture that students learn when they use computers.

This concludes an evaluation of two minimum areas of benefit to which OAK students have access: peer interaction and student-centered instruction. Student centered instruction includes attentive, flexible instruction; moral support; and an orientation to cyberculture. Although these benefits may seem as though they should be a given, it is important to note that some of them would not be available at all in mixed age class rooms. Others would be available to a lesser extent.

II. CONFLICT OVER COURSE GOALS

In spite of a generally positive educational environment, there were issues that some students defined as problems, which, however, administration did not. Several students, for instance, complained that the pace was too slow and there was too much repetition. Some blamed this on the students for being "stupid. They just don't get it," (H. Vera, 5/25/00, p.24). Another student blamed it on the instructor: "She doesn't run the class right," he said, "She goes over everything so many times," (H. Vera, 4/27/00, P.9).

My observations indicated that there were some grounds for complaints about repetition and slowness. Several times I observed that the majority of students had to wait when the instructor tried to give individual instruction to those who asked for clarification.[6] (See endnotes.) [The fact that the majority of students had to wait while others received the instructors' attention might be characterized as one undesirable consequence of individualized, student-centered instruction. However, as I will discuss below, there may be some practical solutions to this problem.]

Some students said one of the instructors gave disorganized lectures, but one must approach this issue cautiously, as it is difficult to interpret students' evaluations. Without a comprehensive survey of all students' evaluations of instructors—an option that was not available to me—it is impossible to evaluate students' criticisms with certainty. Here I present isolated and random comments made by vocal students. They serve the purpose of suggesting the type of discord that can arise in any class.

A student who had been a teacher told me, "She [Ms. Flynn] can't teach." Having been a teacher, the man said, he felt he could easily recognize an inability to teach, (F.

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Flynn, 3/27/00, p.9). Another student, Janet, who criticized Ms. Flynn's rambling lectures claimed that other students were also critical and had asked her (Janet) to go make a complaint to administration (which she had declined to do), [H. Vera, 5/25/00, p. 24]. (Janet was also among those who made the statement that other students were too slow.)

A student from another of Ms. Flynn's classes complained to the director that F. Flynn's classes were not "professional." Once again, such random comments cannot possibly reflect the instructor's actual performance. However, this particular complaint is worth noting in that it raises the issue of quality and standards. How rigorous should adult education be? Is it a leisure activity with an orientation toward personal use? Or should it address the fact that many seniors are not in a position to retire and must continue developing job skills?

Administration's Perspective

The leisure versus rigor dichotomy mentioned above offers a schematic of educational orientations. In reality, there is not always a hard dividing line between the two. Nevertheless, these two perspectives can pull in different directions.

OAK leaned in the direction of a personal development orientation in constructing its programs. This approach was shaped by budget constraints and administration's perception of students' interests. The result was an emphasis on personal development and socialization over more demanding, livelihood-oriented course content. The Director made a statement about problems involved in job-skills training which helped explain administration's choice of educational goals:

> Most job training is so specialized and fast-changing that you have to have a very large catchment of people for it to pay off. Of those who are taking OAK classes for business, their purpose is usually a small home business. One student

> complained that one of the instructors' lectures weren't professional, and I told her they weren't supposed to be. We tell people who want fast, in-depth, efficient classes they would do better to take them elsewhere because we're not structured for that. Regional occupational training programs are good at vocational training (Interview, OAK Director, 6/19/00).

Budgetary constraints were reflected in the Director's statement that OAK cannot provide the specialization required by job training programs. This and Administration's perception of students' interests factored into OAK's orientation toward personal use goals. The statement provides an example of how personal use curricular goals can be at cross-purposes with job skills goals. In her statement, the Director links personal use goals to the fact that an instructor's lectures, described by the student as "not professional," were nevertheless adequate since the program was not intended to be professional. This suggests some divergent views over educational standards between administration and a minority of students.

The second student criticism concerned slowness and repetition of lectures. The fact that some students were hard of hearing escalated disparate ability levels. Also, there was a shortage of written material for the classes, which meant that if students missed an instruction or explanation the first time, they had to ask others or fall behind. Since the order of steps in computer processes is rigidly consecutive, it was extremely hard to catch up if one missed a couple of keystrokes.

The situation was exacerbated by a shortage in written versions of class assignments. This particularly hurt hard-of-hearing students. A conversation that I had with one of the instructors helped explain the lack of written material.

> ...I asked J.Landis what textbooks students have access to for the class. He said students weren't requested to buy a textbook because: "These are older folks and they don't have the money." He showed me an 8 ½ by 11 glossy paperback book he had in the trunk of his car called *Windows 97*.
>
> "Is this an optional textbook for the class?" I asked. J.Landis said no, and I asked if instructors weren't even supposed to suggest books.
>
> "Right," he said, [Interview, J. Landis, 4/29/00].

The fact that the program was free to students, and that students were assumed to not have enough money for textbooks suggests that administration targeted classes toward low income seniors, many of whom had been aging along with the program. The Director referred to this when she told me, "I see more of our students with walkers now. The population is getting older. So the types of classes we offer are changing—more health-related classes, for instance, like yoga and Tai Chi." This orientation toward the "older old," who were on low and fixed incomes further separated the program from vocational retraining purposes. (The Director then went on to express a generally discouraged attitude about the elderly being able to find decent jobs, which was grounded in her several years of listening to students talk about their life experiences.)

The conflict between Administration's goals and standards versus those of some students raises the question of whether personal use goals must correspond to laxer standards of quality than livelihood-oriented goals. I suggest that, up to a point, they do not. There are two reasons why not. First, skipping over solvable problems does nothing to enhance personal use goals. In terms of the need at OAK for written material, for instance, handouts that accompany lectures and classroom computer tasks are

inexpensive. And taking lightly the student's complaint about the disorganized lecture did not serve personal use goals either.

There is a second way in which it may be mistaken to equate personal use goals with laxer standards than those associated with job-skills goals: not only job-seeking or employed seniors want efficient, organized classes. So do many "personal use students." Two of the students, for instance, who complained about slowness and repetition of lectures were retired and taking the classes for personal use.

After a point, however, it is possible that personal use goals must part ways with goals based on livelihood-oriented use. Classes with more rigorous standards may need more money for equipment and instruction. Faster pacing might also reach a point of irreconcilability among different student ability levels.

CONCLUSION

Although I have pointed out program weaknesses, I would reiterate that the program is highly regarded and serves an important community need. It is the unique provider of classes for retired people, many of whom are approaching the age category that gerontologists call the oldest old. The public information officer at the main college told me, "OAK is one of our most high profile and active programs. It has a very active constituency who is deeply loyal," (Public Information Officer; Interviews, 5/28/00).

Furthermore, the students who made criticisms continued attending their respective classes. One of them wrote that he planned to take more computer classes at OAK (in a questionnaire turned in on the last day of class). And the student who complained to the Director about lectures told the instructor (against whom she had lodged the complaint) that the class had been "wonderful." This statement, too, was made

on the last day of class, which not only gives it the weight of a final evaluation, but illustrates the fact that the student stayed with the class until the last day (F. Flynn, 6/5/00, p. 46). In short, even critical students were able to appreciate strong points of the program.

Overall, therefore, the OAK students whom I observed seemed to perceive the computer classes as beneficial. And although administration had targeted classes to retirees rather than to workers and job-seekers, the OAK program and others like it might serve as a good beginning orientation for seniors who may then continue with more advanced computer classes in public or private venues.

NOTES

[1] **F. Flynn**; Fieldnotes 5/8/00, p.23

[2] **F. Flynn**; Fieldnotes 4/15/00, pp 15, 22; Fieldnotes 5/15/00, p.36; Fieldnotes 5/22/00, p. 42; 3/27/00, p.9
H. Vera; Fieldnotes 5/18/00, p19, 21

[3] **H. Vera**; 4/6/00, p.5.

[4] **H. Vera;** 5/4/00, p.11;
F. Flynn Fieldnotes 4/3/00, 4/3/00, 5/8/00, p.25; Fieldnotes, 4/20/00 p. 20.
Also (not cited): 4/6/00, p. 5

[5] "Instructor circulates": **H.Vera**: Fieldnotes, 4/27/00 p. 8, p. 8; Fieldnotes 5/4/00 p. 11, p. 11; Fieldnotes 5/18/00, pp. 20, 23;
F. Flynn Fieldnotes 4/3/00, p.11
"Instructor spends time with individual students":
H. Vera: Fieldnotes 4/6/00 p 4, 4, 5, 7; 8; Fieldnotes 5/4/00, p. 11, 11, 12; Fieldnotes 5/16/00 p. 14; Fieldnotes 5/18/00, pp.18,19,19,19,19; Fieldnotes 5/25/00, p. 23
F. Flynn Fieldnotes 5/15/00, pp. 32,32,33,35,36,39,39,40; Fieldnotes 5/22/00, p. 42

[6] **H.Vera**; Fieldnotes 5/16/00, p.14; Fieldnotes 5/14/00, p.10; Fieldnotes 5/16/00, p. 15; Fieldnotes 5/18/00, pp.18, 19

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The following questionnaire was handed out to approximately 38 beginning and intermediate students in OAK computer classes. Nineteen questionnaires (or a little over half) were returned. Results are mentioned, as relevant, in the text of this paper.

Questionnaire

Dear Students:

Thank you for allowing me to attend [Oak] computer classes as part of my course work in UCLA'S Dept of Education. I'm interested in adult and continuing education and have felt privileged to be here.

If you have any questions or comments regarding this questionnaire or my presence in your classes, please feel free to e-mail me at spenn@ucla.edu. Thanks very much for taking time to answer this questionnaire.

Susanne Pennoyer 310-392-7717. If I miss you in class, you may mail this to me at: 1119 Cabrillo Avenue, Venice, CA 90291.

1). How do you feel about working on the computer? This question assumes that you probably feel differ[illegible]t ways at different times, so please choose as many answers as apply, and feel free to add your own.

a). Interested? Example of when you are most likely to feel this way (specific examples, if you can think of them).

b). Frustrated? Example of when, or specific instance (as above).

c). Bored? Example of when, or specific instance.

d). Stimulated? Example of when, or specific instance.

e). Enjoy it? Example of when, or specific instance.

AND/OR choose your own words to describe. (Feel free to ramble about computers in general and how you feel about them.)

2. What are some reasons you decided to take the class? (Please elaborate as much or little as you feel inspired to. Use back of paper if needed.)

a). Interested.

b). Had definite purposes in mind. E.G. for work, accounting, e-mail, etc. (You may have already answered in one of the questions above. If so repeat, elaborate or ignore, as you like.)

c). Enjoy getting out and interacting with people.

d). May have been interested but also felt pressure from outside. For instance: Relations and friends urged you to learn computer skills. Explain a little. For instance, if others thought you should take it, what reasons did they give? Or explain whatever applies in your case (a couple of sentences—or more).

And/or society in general seems to apply pressure to make you feel you need to and should use computers.

e). Other

3. Do you think you'll use computers much? Please elaborate a little (just a phrase or 2, and more if you like).

4. Will you take more computer classes? Please elaborate a little.

5. Do you take other classes besides computer classes, or do you plan to?

6. How much do you care about traditional, classroom learning, (as versus, for instance, one-time only seminars and other types of less formal learning)? Do you perceive advantages to regular meetings in a fixed place for a specified term (i.e., quarter or semester)?

Would you describe it as fairly central to your life?

Or peripheral?

Or…?

7. Any comments you would like to add?

[1] **F. Flynn's class**; Fieldnotes 5/8/00 p.23

[2] **F. Flynn's class**; Fieldnotes 4/15/00 pp 15, 22; Fieldnotes 5/15/00 p.36; Fieldnotes 5/22/00 p.42; 3/27/00 p.9
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[3] **H. Vera's class**; 4/6/00 p.5.

[4] **H. Vera's class;** 5/4/00 p.11;
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"Instructor spends time with individual students":
H. Vera's class: Fieldnotes 4/6/00 pp. 4, 4, 5; Fieldnotes 4/27/00 pp. 7, 8; Fieldnotes 5/4/00 pp 11, 11, 12; Fieldnotes 5/16/00 p.14; Fieldnotes 5/18/00 pp.18, 19, 19, 19, 19; Fieldnotes 5/25/00 p. 2;
F. Flynn's class: Fieldnotes 5/15/00 pp. 32, 32, 33; Fieldnotes 5/15/00 p. 35; Fieldnotes 5/15/00 pp. 36, 39, 39, 40; Fieldnotes 5/22/00 p. 42

[6] **H.Vera's class**; Fieldnotes 5/16/00, p.14; Fieldnotes 5/14/00, p.10; Fieldnotes 5/16/00, p. 15; Fieldnotes 5/18/00, pp. 18, 19

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c). Bored? Example of when, or specific instance.

d). Stimulated? Example of when, or specific instance.

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AND/OR choose your own words to describe. (Feel free to ramble about computers in general and how you feel about them.)

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